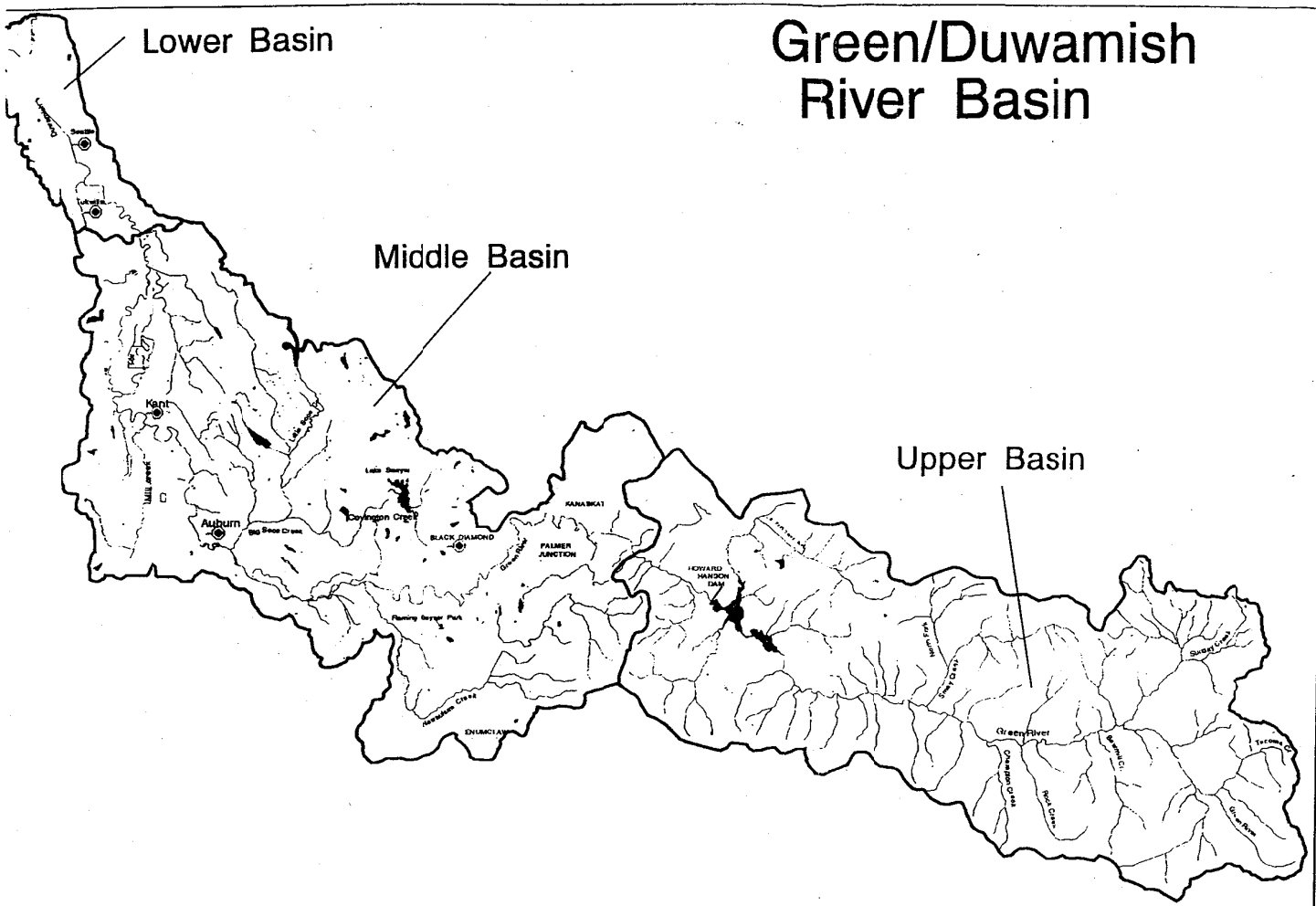
Green/Duwamish River Basin



Legend

- Text Feature Annotation
- Streams/Rivers - WARIS
- Lakes
- Streams/Rivers - WARIS
- Lakes
- Streams/Rivers - WARIS
- Lakes
- Text Feature Annotation
- Middle
- Lower
- Upper

N

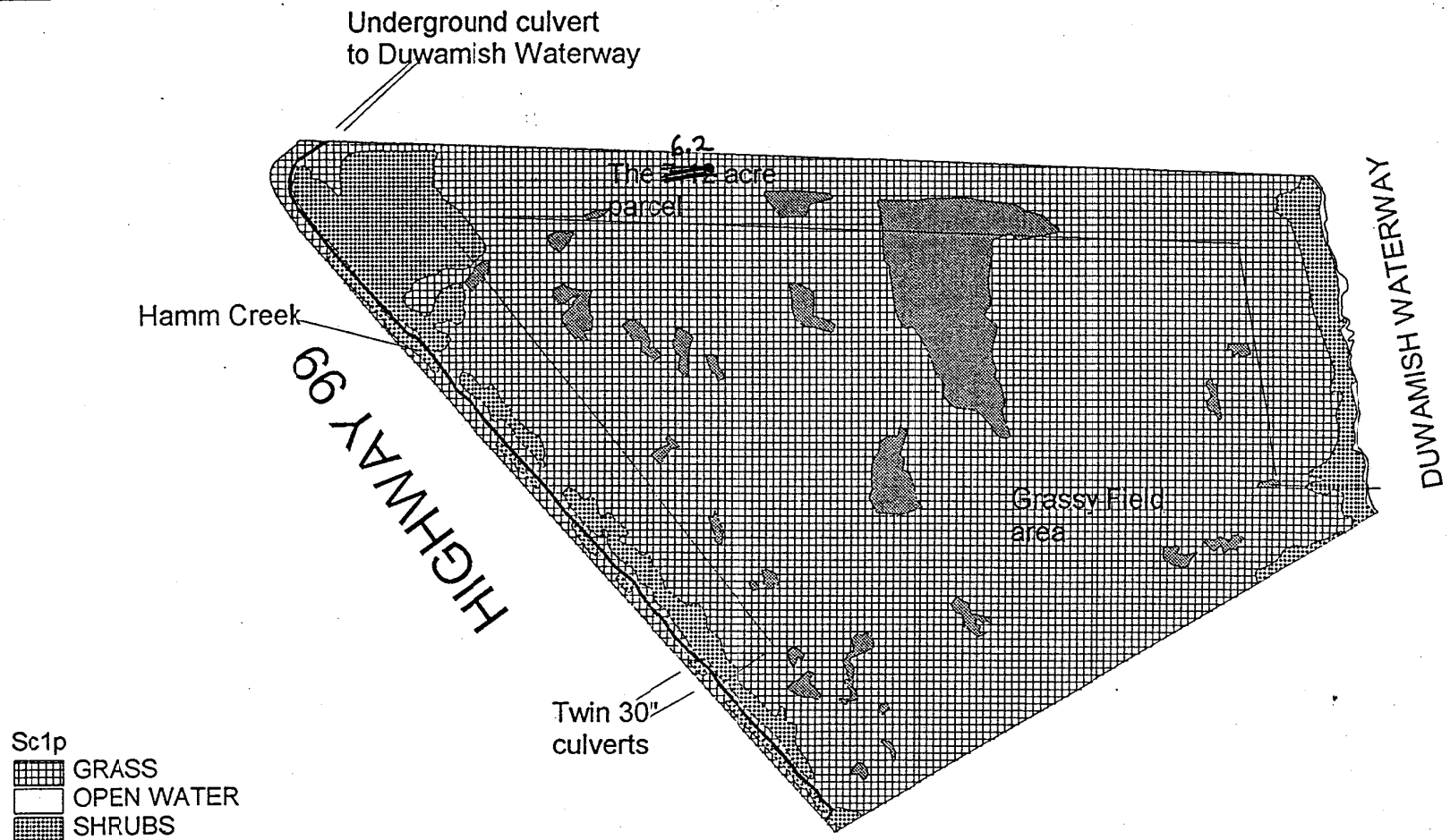
FIGURE 2

Sources

River Habitat information obtained from Washington Rivers Information System (WARIS) database

Corps of Engineers
Date: 10/16/96
Plate: Draft
Preparer: PTC

Basin Divisions and Tributaries

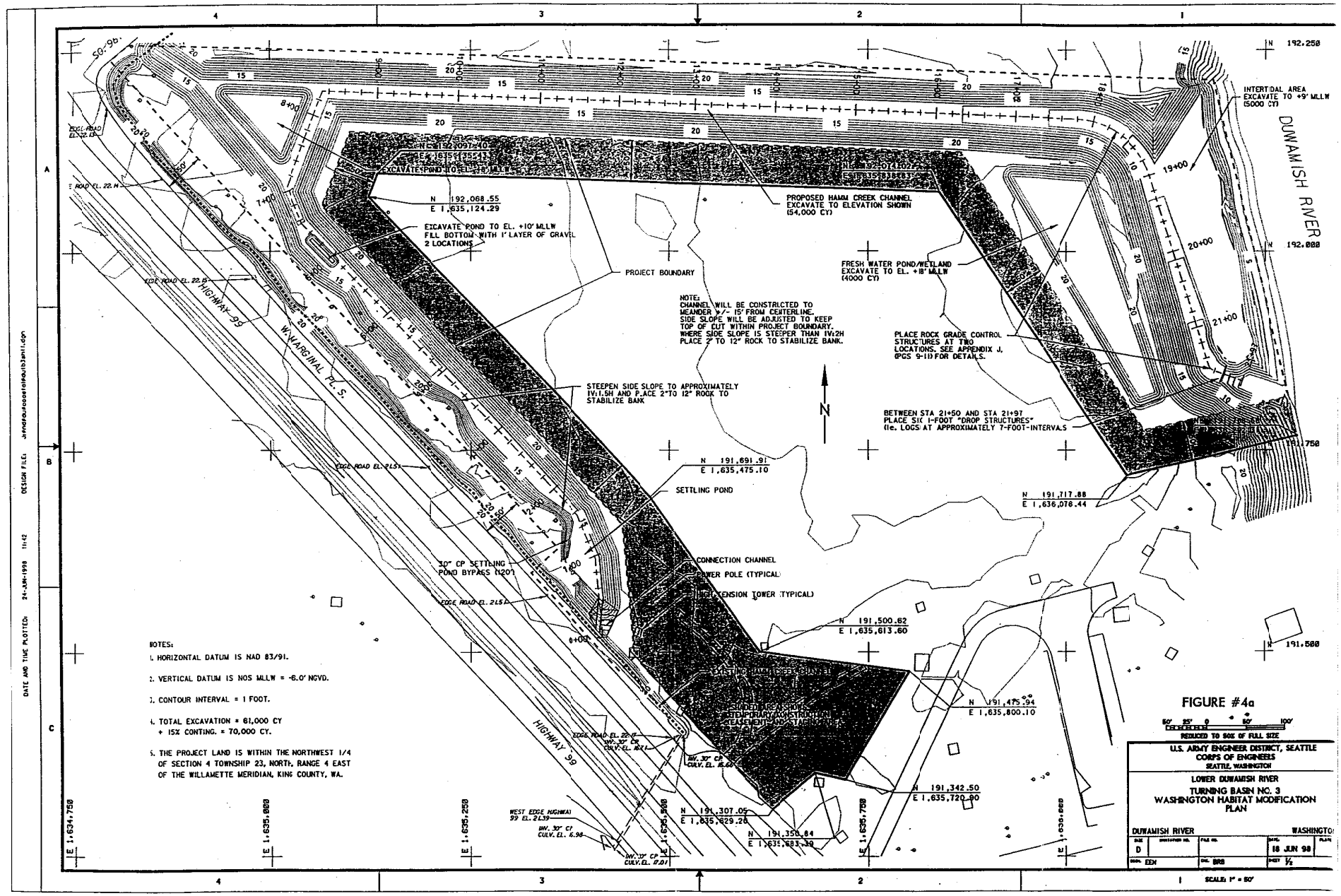


Turning Basin 3

Corps of Engineers
Date: 08/13/97
Plate: Draft
Preparer: DAG

Turning Basin #3
Current condition

FIGURE #3



NOTES:

1. HORIZONTAL DATUM IS NAD 83/91.
2. VERTICAL DATUM IS NOS MLLW = -6.0' NGVD.
3. CONTOUR INTERVAL = 1 FOOT.
4. TOTAL EXCAVATION = 61,000 CY
   + 15% CONTING. = 70,000 CY.
5. THE PROJECT LAND IS WITHIN THE NORTHWEST 1/4 OF SECTION 4 TOWNSHIP 23, NORTH, RANGE 4 EAST OF THE WILLAMETTE MERIDIAN, KING COUNTY, WA.

FIGURE #4a

50' 25' 0 50' 100'

REDUCED TO SIZE OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

LOWER DUWAMISH RIVER

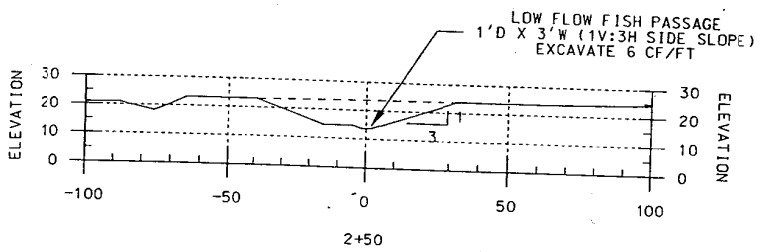
TURNING BASIN NO. 3
WASHINGTON HABITAT MODIFICATION
PLAN

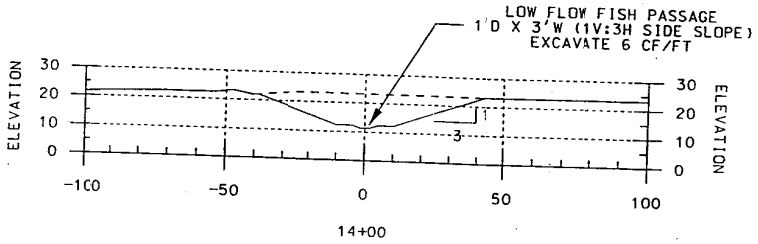
DUWAMISH RIVER — WASHINGTON

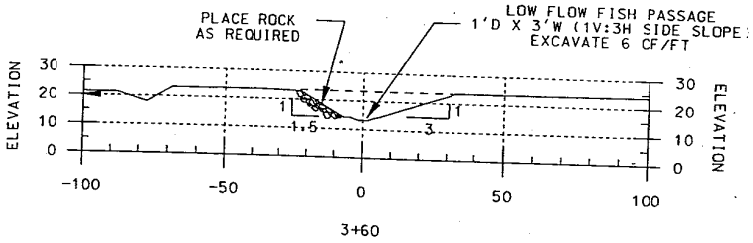
SIZE	DESIGNATION NO.	FILE NO.	DATE	PLATE
D			18 JUN 98	
DRN. EEH		CHK. BRB	SHEET 1/2	

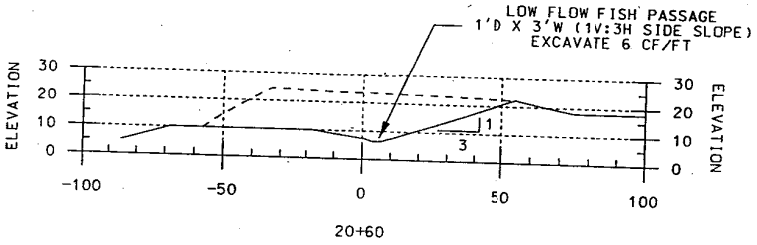
SCALE: 1" = 50'

DATE AND TIME PLOTTED: 24-JAN-1998 11:42 DESIGN FILE: J:\fnd\duscoastal\tb3ant1.dgn SCALE: 1" = 50'









LINE	SURFACE
-----	EXISTING
———	PROPOSED
Scaled 1.00 Times	

FIGURE #4b

REDUCED TO BOX OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

LOWER DUWAMISH RIVER

TURNING BASIN NO. 3
WASHINGTON HABITAT MODIFICATION
SECTIONS

DUWAMISH RIVER — WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D			18 JUN 98	
DSGN. EEN	DRL		SHEET 2/2	

DATE AND TIME PLOTTED: 18-JUN-1998 07:18 DESIGN FILE: J:\end\du\coastal\dutb3sht1.dgn

SCALE 1" = 20'

APPENDIX A

KING COUNTY WETLAND MAP

(NO CHANGE FROM DRAFT)

WETLAND DELINEATION REPORT

FOR THE

CITY LIGHT NORTH / HAMM CREEK

RESTORATION PROJECT

KING COUNTY, WASHINGTON

CIP #0C1645

Submitted To:

King County Department of Natural Resources
Surface Water-Engineering and Environmental Services

NO CHANGE FROM DRAFT

Prepared By:

Jon Raybourn, Ecological Technician

Ecological Services Unit

March 30, 1998

APPENDIX B

FISH INFORMATION ON HAMM CREEK

(NO CHANGE FROM DRAFT)

APPENDIX C

ANALYSIS OF RESTORATION ALTERNATIVES AND ENVIRONMENTAL BENEFITS

(NO CHANGE FROM DRAFT)

APPENDIX D

ECONOMIC EVALUATION

ECONOMIC EVALUATION
APPENDIX D

Introduction. The options described under alternative 1 were evaluated in more detail. Each of the options met with varying degrees of success technical planning objectives, they also met, to varying degrees the environmental and social criteria and project goals. Evaluation and selection of a final restoration plan is based on several additional criteria. These criteria include the significance of the resource and project area, local sponsor input and support, reasonableness of project cost, and a cost-effectiveness analysis and an incremental cost evaluation analysis (CEA/ICA). A description of the options under alternative 1 as well as a description of alternative 2 are shown in paragraph 5.3 of the main report

Since the benefits of restoration projects are not typically measured in monetary terms, a benefit-to-cost ratio is not used to determine project justification, and maximizing net benefits cannot be used to optimize project outputs. Cost effectiveness and incremental analysis are tools that can be used to evaluate contributions of various plans when benefits are not identified in monetary terms, but rather environmental outputs. The cost effectiveness portion of the evaluation ensures that least cost alternatives are identified for various levels of environmental output. These are referred to as efficient alternatives. The subsequent incremental evaluation evaluates changes in costs for increasing levels of environmental output. The results of an incremental evaluation do not result in a discrete decision criteria (such as the plan that maximizes net benefits), but provides a tool to facilitate plan selection.

To complete this type of economic evaluation quantification of the environmental quality outputs is necessary. The conceptual level designs and costs for each plan are also required. The methodology that has been used to quantify environmental outputs is discussed in detail in appendix C.

Cost Effectiveness and Incremental Cost Analysis. The environmental outputs or project benefits of implementing any of the alternatives or options were measured through the eight different categories. These include; (1) primary productivity, (2) patch size coefficient of variation, (3) mean patch size, (4)total edge, (5) Shannon's diversity index, (6) Shannon's Evenness Index, (7) Patch Richness Density, and (8) Interspersion /Juxtaposition. Scores were obtained for each of these categories under the existing condition and under the various with project conditions. In order to use these measures in the cost-effectiveness and incremental analysis a composite index score was developed. Several steps were involved.

The first was to develop a proportional index between 1 and 100 for each variable. This is a relative measure with the highest alternative or option scoring 100 and the other options proportionately less. For example, the primary productivity rating for alternative 2 was 106, this was the highest and in terms of the index was

scored 100. Option 1 of alternative one had a primary productivity score of 62.50, in terms of the index the score was 59. The index was developed for each variable under the different alternatives/options. The reason for converting each of the measures to an index score was so they could be added together. No separate scores were developed for option 7, however a score for this option was necessary for the incremental evaluation. The difference between option 4 and option 6 was used as proxy score for option 7.

The next step in developing the composite score for each option was to weight each of the eight environmental benefit variables. As discussed above, the primary productivity and total edge are considered to be more important criteria to consider than the others. As such, these two variables were weighted 20 percent each, and all the others were weighted 10 percent. The relative index score was multiplied by either the 10% or 20% factor to arrive at the proportional index. This resulting proportional index number is shown in table D1 (in this appendix) in bold. The index's were added for each alternative to arrive at an overall score. The overall score was used in the cost effectiveness and incremental cost evaluation. Also shown in table D1 are the individual scored for the eight variables for each option/alternative. The bold numbers in table D1 correspond to Table 2 in the main body of the report.

The first step in the cost effectiveness analysis is to sort the alternatives and options by project output and costs. The following table lists each of the options with annualized project costs, the alternatives are sorted by increasing environmental output levels.

Alternatives Sorted by Project Output

Alternative	Annualized Project Cost Oct. 1997 P&C (X $1000) 50 yr. @ 7 1/8%	Environmental Benefit Weighted Index
No Action	$0	55.11
Option 7, Alt. 1	33	62.88
Option 6, Alt. 1	178	77.93
Alternative 2	468	81.81
Option 4, Alt. 1	194	84.38
Option 1, Alt. 1	197	84.82
Option 3, Alt. 1	201	87.69
Option 2, Alt. 1	204	88.29
Option 5, Alt. 1	204	89.20

Alternative 2 and Option 2 of alternative 1 are eliminated from further consideration since a greater level of output can be achieved at a lower cost with other options. This leaves seven restoration plans which represent the cost effective least cost solutions for various output levels. It should be noted that option 2 and option 5 are identical in terms of cost and only have a small variation in output. In terms of recommending a

plan these can be viewed as interchangeable. The only difference between the two is the type of wetland in the upland marsh parcel. Option 5, with the open water marsh scores higher in terms of output, so this will be used for the incremental evaluation.

The next step is the incremental evaluation, which examines changes in outputs and costs. The table below lists the remaining alternatives, sorted by increasing outputs and costs. And the increase in project outputs and costs over the previous plan, these are referred to as incremental changes.

Cost-Effective Least-Cost Alternatives with Incremental Evaluation

Alternative	Annualized Project Cost 1997 P&C 50 yr. @ 7 1/8% ($1,000)	Environ. Benefit Index	Incre-mental Cost ($1,000)	Incre-mental Output	Incre. Cost per Incre Output ($1,000)
No Action	$0	55.10	0	0	$0
Option 7, Alt. 1	33	62.88	33	7.77	4.25
Option 6, Alt. 1	178	77.93	145	15.05	9.63
Option 4, Alt. 1	194	84.83	16	6.45	2.48
Option 1, Alt. 1	197	84.82	3	.44	6.82
Option 3, Alt. 1	201	87.69	4	2.87	1.39
Option 5, Alt. 1	204	89.20	3	1.51	1.99

For example, the column labeled incremental cost reflects the change in cost from one alternative to the next. The annualized cost of option 7, alternative 1 is $33,000. The cost of the alternative with the next highest output is option 6, alternative 1 with a cost of $178,000. The change in cost, referred to as the incremental cost is $145,000. The column labeled incremental output is similar, reflecting the increase in output from one alternative to the next. The final column is the change in cost divided by the change in output from moving from one plan to the next. The fluctuations in the incremental cost per unit reflect significant cost items being incurred in order to obtain the next highest output level. For example when moving from option 7 to option 6 the added cost and output of restoring and day-lighting the creek are added which increases both costs and outputs. The difficulty with this display of incremental cost per unit is that it provides limited information in helping to identify the best project scales to implement. Several additional steps are used to better identify the plans that are most efficient in production.

The next step in the incremental evaluation is to identify those plans which are most efficient in production as project scale is increased. For this step, incremental costs are evaluated between each alternative and the no action plan. The alternative with the lowest incremental cost per unit is selected and the others which produce lower outputs deleted. This step is then followed by a recalculation of the incremental cost of implementing successive plans, selecting plans with the lowest incremental cost and

deleting all others. The final incremental cost data is presented below. By looking at increases in the incremental cost per incremental output it becomes clearer which project scales might be the best to implement. The results indicate that option 5 or option 7 are incrementally justified. The incremental cost per incremental output of option seven is $4.25 while it increases to $6.5 for option five.

As stated earlier the incremental evaluation is a tool to help select a recommended plan. For this project the question is whether it is "worth it" to go from option 7 (estuary alone) to option 2 (optimal restoration for the 7.12 acre parcel). The change in the incremental cost per incremental output as well as the total implementation costs of each of the options and the reasonableness of these costs should be considered. However environmental considerations on determining whether it is worth it are critical in moving from option 7 to option 2.

Final Incremental Evaluation

Altern.	Total Project Cost	Ann. Project Cost Oct. 1997 P&C 50 yr. @ 7 1/8% ($1,000)	Environ. Benefit Index	Incre-mental Cost ($1,000)	Incre-mental Output	Incre. Cost per Output ($1,000)
No Action	$0	$0	55.1	0	0	0
Option 7, Alt.1	$445,000	33	62.88	33	7.77	4.25
Option 5, Alt. 1	$2,771,000	204	89.20	171	26.32	6.50

As noted in the main body of the report the results of the evaluation were presented to the local sponsor. Upon more detailed consideration of the alternatives, associated costs and outputs, it was determined that including the connection to the upper project area was not warranted. It was determined that upstream migrating fish could pass through the culvert without much difficulty. A second incremental evaluation was completed to determine if there would be any affect on the incremental evaluation. The results of this second evaluation is shown below. Although the incremental costs change somewhat, the overall result does not change. The decision must still be made on whether moving from the estuary alone option (Alt. 1, option 7) to the option which includes the estuary, upland one acre and the creek/ditch restoration (Alt. 1, option 1).

Incremental Evaluation Without Culver Modification

TABLE D1

TURNING BASIN SECTION 1135 BENEFIT EVALUATION

Primary Productivity and Total Edge are weighed 20%
Other Variables are Weighed 10%

	No Action	Alternative 1 Option 1	Alternative 1 Option 2	Alternative 1 Option 3	Alternative 1 Option 4	Alternative 1 Option 5	Alternative 1 Option 6	Alternative 1 Option 7	Alternative 2
Primary Productivity	43.50	62.50	69.00	67.30	60.80	68.20	53.20	51.10	106.00
prop. Index 20%	8.21	11.79	13.02	12.70	11.47	12.87	10.04	9.64	20.00
Patch Size (Inverse X 1000)	1.83	3.22	3.47	3.44	3.18	3.44	2.78	2.00	3.61
prop. Index 10%	5.08	8.91	9.62	9.52	8.82	9.52	7.69	5.55	10.00
Mean Patch Size	0.16	0.20	0.21	0.20	0.20	0.20	0.18	0.18	0.25
prop. Index 10%	6.40	8.00	8.40	8.00	8.00	8.00	7.20	7.20	10.00
Total Edge	3613.00	4946.00	5777.00	5980.00	5149.00	5980.00	4944.00	3818.00	2627.00
prop. Index 20%	12.08	16.54	19.32	20.00	17.22	20.00	16.54	12.77	8.79
Shannon's Diversity Index	0.50	1.41	1.38	1.35	1.37	1.43	1.18	0.79	1.18
prop. Index 10%	4.44	10.44	10.22	10.00	10.15	10.59	8.74	5.85	8.74
Shannon's Evenness	0.37	0.68	0.66	0.65	0.66	0.65	0.61	0.42	0.66
prop. Index 10%	5.44	10.00	9.71	9.56	9.71	9.56	8.97	6.18	9.71
Patch Richness	68.40	109.50	94.00	94.00	109.50	105.70	95.80	82.10	70.50
prop. Index 10%	6.25	10.00	8.58	8.58	10.00	9.65	8.75	7.50	6.44
Interspersion Index	53.80	68.20	70.40	69.70	67.30	67.30	74.70	61.20	60.80
prop. Index 10%	7.20	9.13	9.42	9.33	9.01	9.01	10.00	8.19	8.14
Total Average	55.11	84.82	88.29	87.69	84.38	89.20	77.93	62.88	81.81

APPENDIX E

GOVERNMENT COST ESTIMATE

TOTAL - ALL CONTRACTS

**** TOTAL PROJECT COST SUMMARY ****

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE 1998 FEASIBILITY REPORT

PROJECT: TURNING BASIN #3, 1135 STUDY
LOCATION: DUWAMISH RIVER/HAMM CREEK, SEATTLE, WASHINGTON

DISTRICT: SEATTLE
POC: STEPHEN PIERCE, ACTING CHIEF, COST ENGINEERI

ACCOUNT NUMBER	FEATURE DESCRIPTION	CURRENT MCACES ESTIMATE PREPAR OCT 97 EFFECTIVE PRICING LEVEL: OCT 97 COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	AUTHORIZED/BUDGET YEAR: EFFECTIVE PRICING LEVEL: COST ($K)	CNTG ($K)	TOTAL ($K)	FULLY FUNDED ESTIMATE COST ($K)	CNTG ($K)	FULL ($K)
06	FISH AND WILDLIFE FACILITIES										
06.03	WILDLIFE FACILITIES & SANCTUARY										
06.03.05	HABITAT AND FEEDING FACILITIES	1,416	354	25%	1,770				1,491	373	1,864
	TOTAL CONSTRUCTION COST	1,416	354		1,770				1,491	373	1,864
01	LANDS AND DAMAGES	746	75	10%	821				779	78	857
30	PLANNING, ENGINEERING AND DESIGN	312	78	25%	390				318	80	398
31	CONSTRUCTION MANAGEMENT	136	34	25%	170				145	36	181
	MONITORING	36	9	25%	45				43	11	53
	TOTAL PROJECT COSTS	2,646	550		3,196				2,775	577	3,353

THIS TPCS REFLECTS A PROJECT COST CHANGE OF: 0

TOTAL FEDERAL COSTS: _____

TOTAL NON-FEDERAL COSTS: _____

THE MAXIMUM PROJECT COST IS: _____

DISTRICT APPROVED:

_____ CHIEF, COST ENGINEERING

_____ CHIEF, REAL ESTATE

_____ CHIEF, PLANNING

_____ CHIEF, ENGINEERING

_____ CHIEF, CONSTRUCTION

_____ CHIEF, OPERATIONS

_____ CHIEF, PROGRAMS MANAGEMENT

Paul Cooke PROJECT MANAGER

_____ DDE (PM)

DIVISION APPROVED:

_____ CHIEF, COST ENGINEERING

_____ DIRECTOR, REAL ESTATE

_____ CHIEF, PROGRAMS MANAGEMENT

_____ DIRECTOR OF PPMD

APPROVED DATE: _____

THIS ESTIMATE IS BASED ON THE SCOPE CONTAINED IN THE 1998 FEASIBILITY REPORT

PROJECT: TURNING BASIN #3, 1135 STUDY
LOCATION: DUWAMISH RIVER/HAMM CREEK, SEATTLE, WASHINGTON

DISTRICT: SEATTLE
POC: STEPHEN PIERCE, ACTING CHIEF, COST ENGINEERI

ACCOUNT NUMBER	FEATURE DESCRIPTION	CURRENT MCACES ESTIMATE PREPAR OCT 97 EFFECTIVE PRICING LEVEL: OCT 97 COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	EFFECTIVE PRICING LEVEL: FEATURE MIDPT	CWCCIS (%)	COST ($K)	CNTG ($K)	FULL ($K)	FULLY FUNDED ESTIMATE FEATURE MIDPT	OMB (%)	COST ($K)	CNTG ($K)	FULL ($K)
06	FISH AND WILDLIFE FACILITIES														
06.03	WILDLIFE FACILITIES & SANCTUARY														
06.03.05	HABITAT AND FEEDING FACILITIES	1,416	354	25%	1,770						AUG 99	5.3%	1,491	373	1,864
	TOTAL CONSTRUCTION COST	1,416	354		1,770								1,491	373	1,864
01	LANDS AND DAMAGES														
	LANDS AND DAMAGES	709	71	10%	780						DEC 98	4.4%	740	74	814
	REAL ESTATE ACQUISITION	29	3	10%	32						DEC 98	4.4%	30	3	33
	REAL ESTATE ADMINISTRATION	8	1	13%	9						DEC 98	4.4%	8	1	9
30	PLANNING, ENGINEERING AND DESIGN	312	78	25%	390						DEC 98	2.0%	318	80	398
31	CONSTRUCTION MANAGEMENT	136	34	25%	170						AUG 99	6.5%	145	36	181
	MONITORING	36	9	25%	45						OCT 02	18.1%	43	11	53
	TOTAL PROJECT COSTS	2,646	550		3,196								2,775	577	3,353

C-13

Turning Basin #3, 1135 Study
Duvamish River/Hamm Creek
Restoration
Seattle, Washington
Option 5

Designed By: U.S. ARMY CORPS of ENGINEERS
Estinated By: M Frisvold/Shaup

Prepared By: COST ENGINEERING
SEATTLE DISTRICT

Preparation Date: 10/21/97
Effective Date of Pricing: 10/21/97
Est Construction Time: 210 Days

Sales Tax: 8.60%

M C A C E S G O L D E D I T I O N
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by Building Systems Design, Inc.
Release 5.30

E-3

The project is divided into Alternatives #1 and #2. Only the costs of Alternative #1 are addressed in this estimate. The main aspects of the project are:

* Modification of the culvert
* Modification to the 1100-foot ditch
* Diverting and "daylighting" the 3000-foot section of Hamm Creek
* Creating additional estaurine marsh
* Modifications to an area upland of the estaurine marsh

The following assumptions are made in development of the cost estimate:

* All excavated material will be disposed off-site except for fill in the existing ditch which will be taken from the wetland
* The 3000-foot subsurface channel will be abandoned
* No channel lining of new creek alignments will be needed
* Costs for the irrigation system will be applied to the creek portion of the project only

Supplier quotes provide the basis of material pricing for the following:

* Soil disposal fee
* Precast concrete daylight vault
* All landscape plants

E-4

Altern.	Total Project Cost	Ann. Project Cost Oct. 1997 P&C 50 yr. @ 7 1/8% ($1,000)	Environ. Benefit Index	Incre-mental Cost ($1,000)	Incre-mental Output	Incre. Cost per Output ($1,000)
No Action	$0	$0	55.1	0	0	0
Option 7, Alt.1	$445,000	33	62.88	33	7.77	4.25
Option 1, Alt. 1	$2,675,000	197	84.82	164	21.94	7.47

	QUANTITY UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND&INS	B&O TAX	TOTAL COST	UNIT COST
05 Option 5									
05.01 Mob, Demob & Preparatory Work									
05.01.01 Mob & Demob	15,000	961	799	1,175	359	92	18,406		
05.01.02 Preparatory Work	49,708	3,252	2,648	3,893	1,190	303	60,993		
TOTAL Mob, Demob & Preparatory Work	64,708	4,213	3,447	5,067	1,549	395	79,399		
05.02 Culvert									
05.02.01 Earthwork	45,392	2,969	2,418	3,555	1,087	277	55,698		
TOTAL Culvert	45,392	2,969	2,418	3,555	1,087	277	55,698		
05.03 Modify Ditch									
05.03.01 Preparatory Work	305	20	16	24	7	2	374		
05.03.02 Earthwork	186,515	12,201	9,936	14,606	4,465	1,139	228,861		
05.03.03 Habitat Improvements	52,174	3,413	2,779	4,086	1,249	319	64,019		
05.03.04 Landscaping	60,974	3,989	3,248	4,775	1,460	372	74,817		
TOTAL Modify Ditch	299,968	19,622	15,979	23,490	7,181	1,831	368,071		
05.04 Divert and "Daylight" Creek									
05.04.01 Earthwork	424,505	27,768	22,614	33,242	10,163	2,591	520,884		
05.04.02 Habitat Improvements	30,286	1,981	1,613	2,372	725	185	37,162		
05.04.03 Landscaping	120,877	7,907	6,439	9,465	2,894	738	148,320		
TOTAL Divert and "Daylight" Creek	575,668	37,657	30,666	45,079	13,781	3,514	706,366		
05.05 Wetland									
05.05.01 Earthwork	34,679	2,269	1,847	2,716	830	212	42,553		
05.05.02 Landscaping	26,749	1,750	1,425	2,095	640	163	32,823		
TOTAL Wetland	61,429	4,018	3,272	4,810	1,471	375	75,375		
05.06 Estuarine Marsh									
05.06.01 Earthwork	76,494	5,004	4,075	5,990	1,831	467	93,860		
05.06.02 Landscaping	14,253	932	759	1,116	341	87	17,489		
TOTAL Estuarine Marsh	90,747	5,936	4,834	7,106	2,172	554	111,349		

APPENDIX F

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FINDING OF NO SIGNIFICANT IMPACT

DUWAMISH RIVER, TURNING BASIN NUMBER 3,
SECTION 1135 ECOSYSTEM RESTORATION,
KING COUNTY, WASHINGTON

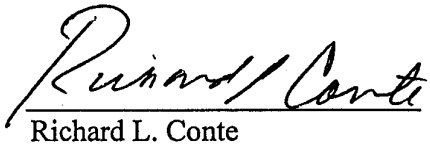
1. Background. The proposed action is described in the attached environmental assessment (EA) and will restore fish and wildlife habitat to Hamm Creek and the Duwamish Waterway, King County, Washington. Currently, Hamm Creek enters the Duwamish through an outfall. This project will "daylight" the stream and allow a more natural connection through one acre of created estuarine marsh on the Duwamish Waterway.

2. Action. The proposed action will create a new stream bed for Hamm Creek, moving the current location of the stream from a large outfall. About 54,000 cubic yards of excavated material will be removed in the location of the new stream bed. Vegetative plantings will occur in the riparian zone adjacent to the stream bed. Within the new stream bed, log or rock and gravel backfill will be placed for fish habitat and bank stability. Additionally, about 5,000 cubic yards will be removed in the area adjacent to the Duwamish Waterway to create about one acre of estuarine marsh habitat. The new mouth of Hamm Creek will meander through this newly created marsh to enter at the Duwamish Waterway. Additionally, about 4,000 cubic yards of material will be removed to create a palustrine wetland adjacent to the estuarine marsh.

3. Evaluation. An environmental assessment has been prepared for the proposed work and was circulated to governmental agencies and other interested parties. The proposed project will not negatively impact the Hamm Creek and Duwamish Waterway area and its natural resources, and in fact, the project is expected to improve fish and wildlife habitat. The proposed action will comply with all applicable laws, regulations, and agency consultations.

4. Finding of No Significant Impact. It has been determined that performance of this work, in accordance with the conditions herein described or referenced, will not significantly affect the quality of the human environment, and thus does not require preparation of an Environmental Impact Statement.

22 July 1998
Date



Richard L. Conte
Lt. Colonel, Corps of Engineers
Acting District Engineer

APPENDIX G

LETTER FROM SPONSOR AND AGENCY LETTERS

	QUANTITY UOM	DIRECT	FIELD OH	HOME OFC	PROFIT	BOND&INS	B&O TAX	TOTAL COST	UNIT COST
05.07 Site Restoration									
05.07.01 Site Restoration		16,230	1,065	867	1,275	390	99	19,976	
TOTAL Site Restoration		16,230	1,065	867	1,275	390	99	19,976	
TOTAL Option 5		1,154,191	75,500	61,485	90,382	27,631	7,046	1,416,234	

U.S. Army Corps of Engineers
PROJECT TNBA35: Turning Basin #3, 1135 Study - Duwamish River/Hamm Creek
Feasibility Phase Cost Estimate

No Backup Reports...

* * * END TABLE OF CONTENTS * * *

King County
Water and Land Resources Division
Department of Natural Resources
700 Fifth Avenue, Suite 2200
Seattle, WA 98104-5022
(206) 296-6519
(206) 296-0192 FAX

June 25, 1998

Colonel James M. Rigsby
District Engineer, Seattle District
United States Army Corps of Engineers
Post Office Box 3755
Seattle, WA 98124-3755

RE: Co-sponsorship of the Lower Duwamish River Turning Basin Number 3 Section 1135 Project

Dear Colonel Rigsby:

Thank you for your continued interest in co-sponsoring the design and construction of improvements to the Turning Basin Number 3 Restoration Project. King County fully supports this project, and the habitat improvements provided will be greatly appreciated by the surrounding community.

By this letter, we acknowledge our part as the non-federal sponsor and declare our intention to commit to the project by signing the Project Cooperation Agreement (PCA). Signing of the PCA will occur after developing plans and specifications to a point that shows the project to be clearly viable and the County acquires the necessary real estate.

The King County Department of Natural Resources has received the latest model PCA for Section 1135 projects. We understand that when the County signs this agreement, it will be committed to providing the lands, easements, and rights-of-way as well as other financial support, if needed.

King County has submitted an agreement to the property owner, Seattle City Light, for the purchase of a 7.12-acre easement (6.2 acres of which is needed for the Corps of Engineers project) for the establishment of wetland, stream, and estuarine habitat. We anticipate completing property procurement by August 1998.

King County understands that the total cost for the project is expected to be about $3,181,000 and is responsible for 25 percent of the total cost, or about $795,000. The land values for the

6.2 acres have been appraised at $708,900 ($659,350 for a permanent easement and $49,550 for a temporary construction easement); the County will be credited for costs incidental to acquisition. The present estimated creditable Lands Easements Rights-of-Way Relocation and Disposal Areas (LERRD) value is $775,000. The County will make up the shortfall between the LERRD value and the 25 percent share by paying cash or supplying a portion of the materials for the project. The present shortfall that the County is responsible for paying is estimated at $20,000. The estimate of project costs is preliminary, and we expect further refinement of costs at final accounting.

Thank you again for your interest. If you have any questions, please call me at 296-6585 or Senior Engineer Mike O'Neil at 296-8305.

Sincerely,

Nancy Hansen
Manager

NH:MO:mlD50

cc: Paul Cooke, Study Manager, Seattle District, United States Army Corps of Engineers
Pat Cagney, Biologist, Seattle District, United States Army Corps of Engineers
Larry Gibbons, Manager, Project Management and Design Unit, Wastewater Treatment Division
ATTN: Karen Goto, Senior Engineer
Mike O'Neil, Senior Engineer, Construction Management and Inspection
Debbie Arima, Assistant Manager, Water and Land Resources Division
ATTN: Lee Ann Merrill, Intergovernmental Relations Coordinator

FISHERIES DEPARTMENT
Area Code (360)
598-3311
Fax 598-4666

THE SUQUAMISH TRIBE
P.O. Box 498 Suquamish, Washington 98392

28 January 1998

Paul Cook, Project Manager
U.S. Army Corps of Engineers
Seattle District
Post Office Box 3755
Seattle, WA 98124-2255

Dear Mr. Cook:

The Suquamish Tribe is pleased to write a letter of support urging the Corps to implement the proposed Hamm Creek restoration project at the Turning Basin No. 3 of the Duwamish Waterway, under Section 1135 of the Water Resources Development Act. If implemented, the project will stand as a model of interagency cooperation in restoring valuable habitat in a heavily utilized urban waterway.

As a natural resource trustee with treaty fishing rights within the Duwamish Waterway and Elliott Bay, the Suquamish Tribe is fully engaged in matters concerning habitat restoration in this area. The Tribe enthusiastically worked with other members of the Elliott Bay/Duwamish Restoration Program Panel of Managers in the conceptual development of the Hamm Creek restoration project. As designed, Hamm Creek would be daylighted and freed to run through 1900 feet of streambed and restored riparian area that will be tended by long-time community stewards.

The land acquisition and project construction costs for this project are well beyond the means of any single program. Yet, a project of this significance in this part of the Turning Basin will be of considerable benefit to the salmon and steelhead who use the river and tributaries of the Green/Duwamish system as spawning and rearing habitat. Restoring critical intertidal and off-channel habitat for the benefit of salmonids and other fish and wildlife species constitutes the "jewel in the crown" of restoration activities in this urban-industrial waterway. The project is all the more significant given particularly the potential listings of selected Puget Sound salmon under the Endangered Species Act.

It is not too often that Tribes, federal and state agencies, and local jurisdictions have the opportunity to work together to restore valuable estuarine and riparian habitat in a heavily

utilized commercial and industrial area. The cooperation of Seattle City Light and other agencies in making the Corps project possible has been outstanding. Again, we urge full implementation, and commend the Seattle District Office for continuing to work with a broad base of natural resource trustees and managers to design and implement significant restoration projects in the Waterway and Elliott Bay nearshore areas.

Sincerely,

Merle a Hayes

Merle A. Hayes
Policy Coordinator,
Fisheries Department

cc: Pat Cagney

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

Restoration Center Northwest
NMFS Northwest Regional Office F/NWO
7600 Sand Point Way, N.E.
Seattle Washington 98115-0070

2 December 1997

Mr. Paul Cook, Project Manager
US Army Corps of Engineers - Seattle District
P.o. Box 3755
Seattle WA 98124-2255

Dear Mr. Cook:

The National Oceanic and Atmospheric Administration supports the Seattle District's efforts to conduct a significant environmental restoration project at Turning Basin No.3 (Duwamish Waterway) under Section 1135 of the Water Resources Development Act. The Corps' proposed project was initially conceived by and now enthusiastically supported by a broad-based group of federal, state, tribal, county, city, and public natural resource agencies. It will restore important urban historical fish and wildlife habitat immediately adjacent to a major Corps maintenance dredging project, the Duwamish Waterway.

Hamm Creek will be removed from thousands of feet of dark culvert and narrow drainage ditch by redirecting it though 1,900 feet of productive riparian stream bed and then returning it free-flowing to the river through several acres of a critical intertidal, off-channel juvenile salmonid marsh habitat. The Turning Basin No.3 project would convert one of the last large tracts to a successful salmon-producing stream, riparian buffer, and intertidal estuary while simultaneously allowing environmentally-sensitive commercial development by Seattle City Light on the remaining footprint. The dredging and filling activities on the lower Duwamish River has reduced historical intertidal mudflats and emergent marshes by 98% of that available to migrating salmon just a hundred years ago.

It is necessary to not only zealously protect the remaining 2% but to enhance and increase suitable habitats at appropriate locations on the river - like a string of pearls - but land acquisition costs in an urban environment for habitat are high. NOAA's Restoration Center Northwest involvement in numerous estuarine habitat projects in Elliott and Commencement Bays has shown us that property acquisition is usually the largest expense of a project. Habitat to support renewable salmon resources have to compete in an urban setting (the Duwamish Waterway) with shorter-term commercial develop-

Voice (206) 526-4338/4348 FAX (206) 526-4321/6665

ment and large estuarine sites (5-10 acres) are becoming very scarce on the Duwamish. In the Seaboard Lumber site downstream near Kellogg Island, our real property acquisition cost was $2,500,000 for 5.7 acres of uplands and 10 acres of tidelands; since only the uplands was used for restoration, our effective site was worth roughly $439,000/acre. At upstream North Wind Weir site, the 1.03 acres of habitat cost us $416,000 or $404,000/acre.

A significant impact of unknown dimensions on future development in Puget Sound estuaries is the National Marine Fisheries Service's forthcoming consideration on whether to list certain Puget Sound salmon species (*i.e.,* Spring chinook) under the Endangered Species Act. We do not know if any Duwamish stocks will be included. Salmon-sensitive restoration projects should see considerable encouragement in a river-basin recovery plan; however, even restoration-based construction projects might be delayed by the mechanics of review under any ESA listings. Hence, an early decision by the Corps leading to construction of this vitally important project is desirable.

We would encourage the Corps to consider complete implementation of this Section 1135 project - which exists almost within sight of the Seattle District Headquarters - with its broad base of local support and adequate non-federal cost-sharing for matching funds. The visibility and viability of this Section 1135 fish and wildlife habitat restoration project is extremely high - both for the environment and for the participating agencies.

Sincerely yours,

Robert C. Clark, Jr.
Director

cc. Curtis Tanner, US F&WS, Olympia Office
Justine Barton, US EPA, Region X
Dr. Russell Bellmer, NOAA RC/HQ, Silver Spring, MD
Glen St. Amant, Muckleshoot Indian Tribe
Margaret Duncan, The Suquamish Tribe
John Boettner, WDF&W
Joanne Polayes, WDOE
Bill Graeber, WDNR
Robert Swartz, King County DNR
Tim Croll, City of Seattle, Public Utilities
John Beal, IMAPAL Foundation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

September 10, 1997

Colonel James M. Rigsby
District Engineer
Corps of Engineers, Seattle District
P.O. Box 3755
Seattle, Washington 98124
Attention: Pat Cagney, Project Manager

Re: Duwamish Turning Basin Number Three §1135 Project--Fish and Wildlife Act Coordination Compliance

Dear Colonel Rigsby:

This letter documents Corps of Engineers' (Corps) compliance with the intent of provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended: 16 U.S.C. 661, et seq.) for the above referenced project. This letter will serve as the U.S. Fish and Wildlife Service (Service) response to fulfill Section 2(b) of the Act.

Under the authority of the Fish and Wildlife Coordination Act (FWCA), the Service is providing the following comments on the Duwamish Turning Basin Number Three §1135 Project:

1. The purpose of the project is improvement of habitat conditions in the Duwamish River estuary. The project, once completed, will provide a surface water channel between Hamm Creek, a salmon-bearing tributary, and the Duwamish. Hamm Creek currently passes through approximately 2000 feet of storm drain before connecting to the River. The project will also provide approximately two acres of intertidal habitat and associated riparian buffer at the new mouth of Hamm Creek, significantly increasing quantity and quality of this limited resource in the Duwamish River estuary. The Service supports project implementation because of the habitat benefits it would provide.

2. This project represents a joint partnership between the Elliott Bay/Duwamish Restoration Program (EB/DRP), King County Department of Natural Resources, and

the Seattle District Corps of Engineers. Through its active participation in the EB/DRP, the interests of the Service have been fully considered by Corps Project Managers. The Service is satisfied that it's concerns have been addressed during project design, given restrictions of project funding and landowner requirements.

3. Because of direct Service involvement in project development through the EB/DRP, we have determined that funding from the Corps of Engineers via the Transfer Fund Agreement of 1980 was not appropriate in this case and that FWCA compliance could be achieved without a detailed Coordination Act Report.

Service staff have greatly appreciated the cooperation exhibited by Corps Project Managers in addressing our concerns during the design phase of this project. Implementation of this project would lead to a significant improvement of habitat conditions in the Duwamish River estuary, and compliment on-going Service activities in this system. We are sincerely hopeful that you are successful in your efforts to secure §1135 funds for the implementation phase of the project.

If we can be of further assistance or provide additional information, please contact Lynn Childers (360) 753-5831 or Curtis Tanner (360) 753-4326 of my staff.

Sincerely,

David C. Frederick
Supervisor

ct/vr

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

September 15, 1997

Cyrus M. McNeely
Department of the Army
Planning Branch
Seattle District Corps of Engineers
Post Office Box 3755
Seattle, Washington 98124-2255

FWS Reference: 1-3-97-SP-553

Dear Mr. McNeely:

This is in response to your letter dated August 8, 1997, and received in this office on August 11, requesting a list of federally listed species (Attachment A) that may be present within the area of the proposed Hamm Creek and Duwamish Waterway restoration project in Seattle, King County, Washington. The list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (Act). We have also enclosed a copy of the requirements for U.S. Army Corps of Engineers (COE) compliance under the Act (Attachment B).

Should the COE determine that a listed species is likely to be affected (adversely or beneficially) by a project, the you should request section 7 consultation through this office. If the COE determines that a proposed action is "not likely to adversely affect" a listed species, you should request Service concurrence with that determination through the informal consultation process. Even if there is a "no effect" situation, we would appreciate receiving a copy for our information.

This list reflects changes to the candidate species list published February 28, 1996, in the Federal Register (Vol. 61 No. 40, 7596) and the addition of "species of concern" prepared by the Service's Western Washington Office. Candidate species are those species for which the Service has sufficient information to propose for listing as threatened or endangered under the Act. Species of concern (many were formerly known as Category 1 and Category 2 candidates) are those species whose conservation standing is of concern to the Service, but for which further status information is still needed. Conservation measures for candidate species and species of concern are voluntary but recommended. Protection provided to these species now may preclude possible listing in the future.

Please be advised that State regulations also may require permits in areas where wetlands are identified. You should contact the Washington State Department of Ecology for State permit requirements.

There may be other federally listed species that may occur in the vicinity of your project which are under the jurisdiction of the National Marine Fisheries Service (NMFS). Please contact NMFS at (503) 230-5400 to request a species list.

Your interest in endangered species is appreciated. If you have additional questions regarding your responsibilities under the Act, please contact Jim Michaels (360/753-7767) or John Grettenberger (360/763-6044) of this office.

Sincerely,

David C. Frederick
Supervisor

cm/br
Enclosures

SE/COE/1-3-97-SP-553/King
c: WDFW, Region 4
WNHP, Olympia

ATTACHMENT A

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES,
CANDIDATE SPECIES AND SPECIES OF CONCERN
WHICH MAY OCCUR WITHIN THE VICINITY OF THE PROPOSED
HAMM CREEK AND DUWAMISH WATERWAY RESTORATION PROJECT
IN SEATTLE, KING COUNTY, WASHINGTON
(T23N R04E S45)

FWS REF: 1-3-97-SP-553

LISTED

Bald eagle *(Haliaeetus leucocephalus)* - wintering bald eagles may occur in the vicinity of the project from about October 31 through March 31.

Major concerns that should be addressed in your biological assessment of project impacts to bald eagles are:

1. Level of use of the project area by bald eagles.

2. Effect of the project on eagles' primary food stocks and foraging areas in all areas influenced by the project.

3. Impacts from project construction and implementation (e.g., increased noise levels, increased human activity and/or access, loss or degradation of habitat) which may result in disturbance to eagles and/or their avoidance of the project area.

DESIGNATED or PROPOSED

None

CANDIDATE

None

SPECIES OF CONCERN

The following species of concern may occur in the vicinity of the project:

Bull trout *(Salvelinus confluentus)* - Puget Sound/Coastal population
River lamprey (*Lampetra ayresi*)

ATTACHMENT B

FEDERAL AGENCIES' RESPONSIBILITIES UNDER SECTIONS 7(a) AND 7(c) OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED

SECTION 7(a) - Consultation/Conference

Requires:

1. Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2. Consultation with FWS when a federal action may affect a listed endangered or threatened species to ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The process is initiated by the federal agency after it has determined if its action may affect (adversely or beneficially) a listed species; and

3. Conference with FWS when a federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or an adverse modification of proposed critical habitat.

SECTION 7(c) - Biological Assessment for Construction Projects *

Requires federal agencies or their designees to prepare a Biological Assessment (BA) for construction projects only. The purpose of the BA is to identify any proposed and/or listed species which is/are likely to be affected by a construction project. The process is initiated by a federal agency in requesting a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, please verify the accuracy of the list with our Service. No irreversible commitment of resources is to be made during the BA process which would result in violation of the requirements under Section 7(a) of the Act. Planning, design, and administrative actions may be taken; however, no construction may begin.

To complete the BA, your agency or its designee should: (1) conduct an onsite inspection of the area to be affected by the proposal, which may include a detailed survey of the area to determine if the species is present and whether suitable habitat exists for either expanding the existing population or potential reintroduction of the species; (2) review literature and scientific data to determine species distribution, habitat needs, and other biological requirements; (3) interview experts including those within the FWS, National Marine Fisheries Service, state conservation department, universities, and others who may have data not yet published in scientific literature; (4) review and analyze the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; (5) analyze alternative actions that may provide conservation measures; and (6) prepare a report documenting the results, including a discussion of study methods used, any problems encountered, and other relevant information. Upon completion, the report should be forwarded to our Endangered Species Division, 510 Desmond Drive SE, Suite 102, Lacey, WA 98503-1273.

---

* "Construction project" means any major federal action which significantly affects the quality of the human environment (requiring an EIS), designed primarily to result in the building or erection of human-made structures such as dams, buildings, roads, pipelines, channels, and the like. This includes federal action such as permits, grants, licenses, or other forms of federal authorization or approval which may result in construction.

Please note that the following pages of Appendix G (pages G-14 through G-28) pertain to the review of the draft report and environmental assessment for Turning Basin Number 3 which was mailed in March 1998. Page G-14 is a list of those who received the draft report and EA, and pages G-15 through G-28 are letters of comment on the draft report and EA. Almost all of the agency recommended changes were made and the final report reflects these changes. Page 40 of the main report discusses the most significant changes made as a result of the review of the draft report and EA.

Turning Basin #3 Agency Mail list for Draft Feasibility report/EA

Name	Place	Address	Address 2	city/zip
Tom Luster	Wa Dept. Of Ecology	P.O. Box 47703		Olympia WA 98504
Joanne Polayes	Wa Dept. Of Ecology	3190 160th Ave. SE	425-649-7233	Bellevue WA 98008
Robert Clark	NMFS	7600 Sand Point Way N.E.	Restoration Center Northwest	Seattle WA 98115
Margaret Duncan	Suquamish Tribe	P.O.Box 498	Fisheries Dept.	Suquamish WA 98392
Curtis Tanner	USFWS	510 Desmond Dr. S.E. Suite 102		Lacey WA 98503
Rich Gustav	City of Seattle	710 2nd Ave Room 51	206-684-7591	Seattle WA 98104
John Boettner	Wa. Dept of Fish and Wildlife	Region 4 17018 Mill Cr. Rd	425 379-2306	Mill Creek WA 98012
Rod Malcom	Muckleshoot Tribe	39015 172nd Ave SE	253 931 0652	Auburn WA 98092
Mike O'Neil Karen Goto Clint Loper	King Co. Water and Land Resources Div.	700 Fifth Ave. Suite2200	206 296 8035	Seattle WA 98104
Dennis Carlson	NMFS	510 Desmond Dr. SE Suite 103		Olympia WA 98503
Justine Barton	Region 10 EPA	1200 Sixth Ave. WD-128		Seattle WA 98101
John Beal	IMAPAL Duwamish Green Alliance	742 S. Southern St.		Seattle WA 98108
Jacques White Tom Dean	People for Puget Sound	1402 Third Ave. Suite 1200		Seattle WA 98101
Michelle Dewey	Seattle City Light	Environ. and Safety Div Seattle City Light	700 5th Ave. Suite 3100	Seattle WA 98104
Eric Hanson	Wash. Dept. Of Transportation	15700 Dayton Ave. N. MS-138	206-440-4540	Seattle WA 98133

Seattle City Light

Gary Zarker, Superintendent
Norman B. Rice, Mayor

March 31, 1998

Patrick Cagney
Environmental Coordinator
Department of the Army
Seattle District Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-2255

RE: Draft Duwamish River, Turning Basin #3 Section 1135 Ecosystem Restoration Report
King County, Washington

Dear Mr. Cagney:

Thank you for the opportunity to review the above referenced document. Seattle City Light (SCL) has the following comments.

1.) Page 15, Section 5.1: You state that the ". . .7.12 acre parcel is a viable option in that the landowner would provide an easement to the County. . . ." As you are aware, negotiations for this easement are ongoing, and as such, no result is certain at this point in time. However, SCL is working with the County to develop an acceptable easement agreement and hopes to make this land available to the County.

2.) Pages 17-20, Section 5.3 and Appendix C: Your descriptions of several of the alternatives include the statement "No change to the grassy field adjacent to the 7.12 acre parcel." As you are also aware, SCL has identified an interim use for the site as an apprenticeship training facility and may have additional uses for the property in the future. We would prefer that your statement be dropped from the project descriptions because it may or may not prove true, and because any development on our property would not be a part of your project.

3.) Page 26, Section 5.9: You state that the 7.12 acre easement site has very poor development potential. SCL questions the veracity of this statement. We consider the portion of the 7.12 acre parcel which bisects our property (we own property to the north and south of a portion of the easement) to have excellent development potential. In fact, we consider the easement requested by King County to be over a very developable piece of property compared to much of our "wetland-encumbered" remaining property.

4.) Page 34, Section 6.2.4: SCL views any current recreational use of our property as non-authorized. This parcel of land is private property, posted as such, and public use is not encouraged. We would consider any discussion of recreational resources as "not applicable" to our property or the easement lands.

5.) Appendix A, Page A-7: SCL believes there was an error in the calculation of "wetland area on the property." The 2.82 acre figure is inaccurate, or at the least, inconsistent with the acreages presented in Table 2 of the same appendix. We have mentioned this to King County on several occasions, and would like the error corrected.

Again, thank you for the opportunity to review this report.. SCL wishes you well in your effort to secure funding for this project and we look forward to working with you on the project in the future. Our Seattle City Council has gone on record in support of the Lower Duwamish Habitat Restoration Plan with adoption of Resolution 29666 (enclosed).

If you have any questions about our comments, please call Michelle Dewey at 206-233-2170.

Sincerely,

Jan Mulder, Acting Manager
Natural Resources and Environmental Planning

BMD:bmd

enclosure

cc (w/enclosure): Swartz, Bob
Heintzman, Jody
Goto, Karen

DRAFT
10/31/97
V1

RESOLUTION 29666

A RESOLUTION relating to the Lower Duwamish Watershed Habitat Restoration Plan.

WHEREAS, the City Council endorses the concepts of the Lower Duwamish Watershed Habitat Restoration Plan and wishes to promote its implementation; and

WHEREAS, the City Council wishes to encourage habitat restoration on the working waterfront; and

WHEREAS, the Lower Duwamish Watershed Habitat Restoration Plan is consistent with and promotes the city's shoreline goals and policies; and

WHEREAS, it is desirable that the various governments having jurisdiction over the lower Duwamish watershed work toward common goals; and

WHEREAS, the City's implementing regulations will specify how the plan is used for permit actions; and

WHEREAS, there is widespread support for the plan and a desire for its implementation by many organizations and members of neighborhood, business, labor, environmental, scientific, civic, and governmental communities; and

WHEREAS, adoption of this resolution represents an important step forward in implementing the December 1996 Duwamish Summit communiqué and in regional cooperation with Tukwila, King County; and other governments; and

WHEREAS, the Muckleshoot Indian Tribe and the state Department of Natural Resources have expressed concerns that the manner in which the plan might be interpreted or administered might result in a loss of habitat; and

WHEREAS, the City Council desires that the City's executive agencies work with interested organizations or citizens including the Muckleshoot Indian Tribe, and the state DNR to provide incentives for restoration and to address concerns when considering regulatory measures to implement the plan;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING, THAT:

1. The state Department of Ecology is encouraged to promptly approve through the shoreline management program amendment process the City's proposed amendments to its comprehensive plan shoreline goals and policies relating to the Lower Duwamish Habitat Restoration Plan and to update the state coastal zone management program accordingly.

2. The City of Seattle encourages the Puget Sound Action Team to incorporate the plan into the Puget Sound Water Quality Management Plan, and encourages other agencies to

recognize or incorporate the plan into their plans, policies, and programs, as appropriate

3. The City of Seattle intends to sponsor the Lower Duwamish Watershed Habitat Restoration Plan for the purposes of state habitat restoration statutes (RCW 89.08) upon adoption of the City's implementing regulations.

4. The City Council encourages executive staff to recognize the LDWHRP, as appropriate, in the environmental element of the comprehensive plan, currently being developed.

5. OMP, and DCLU should prepare for consideration by July 1, 1998, amendments to the City shoreline policies and regulations, environmentally critical areas ordinance and any other relevant policies and regulations to provide for implementation of the general concepts of the plan, and to allow consideration of the regulatory measures in the model ordinance of the plan. With the proposed implementing regulations OMP and DCLU should present a report and recommendation on City and state permit processes under sponsorship of the plan under RCW 89.08.

6. In developing implementing policies and regulations, OMP should work with organizations and citizens who have expressed interest in the plan and its implementation, including the Mucklelshoot Indian Tribe and the state Department of Natural Resources in order to improve existing regulations to meet the plan's goals and to address the concerns expressed in the Tribe's September 22, 1997 letter and DNR's October 9, 1997 letter to the City Council, regarding potential for loss of habitat.

7. OMP and the Neighborhood Planning Office should work with all groups conducting neighborhood planning for areas affecting the Lower Duwamish watershed to ensure consideration of the Lower Duwamish Watershed Habitat Restoration Plan.

Adopted by the City Council the 13th day of November, 1997, and signed by me in open session in authentication of its adoption this 13th day of November 1997.

President of the City Council

THE MAYOR CONCURRING:

Norman B. Rice, Mayor

Filed by me this 21 day of November, 1997.

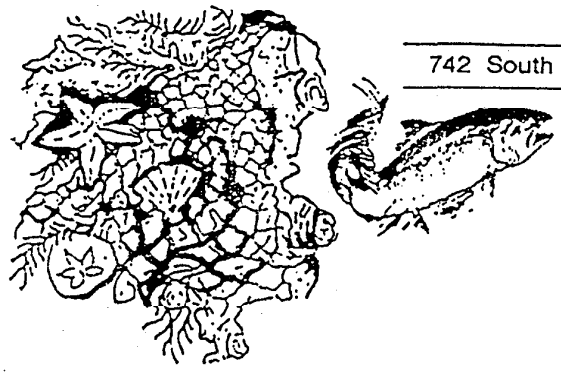
(Seal)

City Clerk

International Marine Association Protecting Aquatic Life

"I'M A PAL" A Non-Profit Foundation • John Beal - FOUNDER

742 South Southern Street • SEATTLE, WA 98108 • (206) 762-3640



April 1, 1998

Colonel James Rigsby
District Engineer, Seattle District
United States Army Corps of Engineers
Post Office Box 3755
Seattle, WA 98124-3755

RE: Duwamish River Turning Basin Number 3 Section 1135 Project

Dear Colonel Rigsby,

The International Marine Association Protecting Aquatic Life Foundation, AKA "I'M A PAL" Foundation, is pleased to write a letter of support urging the Corps to implement the proposed Hamm Creek restoration project at the Turning Basin No. 3 site on the Duwamish River, Section 1135 of the Water Resources Development Act.

The I'M A PAL foundation has spent 18 years working on restoration projects through out the Hamm Creek watershed. This site particularly has been the ongoing project for me personally, even before the formation of the I'M A PAL foundation. Working to restore the Hamm Creek system I began at the "Point Rediscovery" site located west side of this site, (referred to as "the King County Project" in the Draft for Turning Basin #3 Section 1135 Report) The Point Rediscovery (King County) Project was a restoration of an old sewage treatment plant with a small stream adjacent to it. I'M A PAL began restoring the stream, planting trees, replacing the fragile ecosystem with the help of volunteers, schools, community members etc. Finally after years of stewardship, I'M A PAL received a grant to purchase the property, however the terms of the grant were to turn over the property to King County for perpetuity., King County came in for the excavation, removal of the buildings and with I'M A PAL created the existing wetland, salmon bearing stream and ponds.

The "City Light North Project" (referred to as Turning Basin #3 site now) was the next natural project for I'M A PAL to do to connect the Duwamish River and the rest of Hamm Creek. I'M A PAL with hundreds of volunteers, have been planting trees, shrubs,
along the "ditch" since 1980. Working with Department of Transportation in keeping the sediment removed to keep the culverts clear and avoid flooding. Some of the time I was down on my knees salvaging the struggling aquatic life from the dredged mud to save the stream. I originally brought the "Turning Basin #3" plan to daylight Hamm

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT PROGRAM/OLYMPIA FIELD OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

April 3, 1998

Patrick Cagney
Corps of Engineers, Seattle District
P.O. Box 3755
Seattle, WA 98124-2255

Re: Duwamish Waterway, Turning Basin #3 1135 Restoration Study Draft Ecosystem Report and Environmental Assessment

Dear Mr. Cagney:

The National Marine Fisheries Service (NMFS) has reviewed the draft ecosystem restoration report and environmental assessment for the Duwamish Waterway, Turning Basin #3 1135 Restoration Study.

NMFS supports the proposed restoration efforts. Thank you for the opportunity to comment on this proposal.

Sincerely,

Steven W. Landino
Washington State Habitat Branch Chief

Department of the Army
Seattle District, Corps of Engineers
PO Box 3755
Seattle, WA 98124-2255

Duwamish Turning Basin #3 1135 Project
Ecosystem Restoration Report and Environmental Assessment
Draft Comments

I have reviewed the Draft and have found some changes I would like added to the final draft.

Please find the following items listed

- Executive Summary Page i paragraph 3 line 7

  include: ***"I'M A PAL" Foundation***

- Page 3 2.2 Resource Problems paragraph 2 line 12

  include: ***"I'M A PAL" Foundation***

- Page 7 3.2.2a Terrestrial Resources paragraph 1

  include: *Salmon, Beaver, Great Blue Heron*

- Page 9 3.2.2d Aquatic Resources line 2

  replace: "pond"

  with: ***2 ponds*** as mentioned on pg 18 5.3.4 Alternative 1,option 2 line 6

  3.2.2d Aquatic Resources paragraph 2 line 11

  replace: "Although their exact effects are unknown, citizen action in cleaning the creek bed since the 1980's and planting invertebrates may have also significantly increased the productivity of Hamm Creek"

  with: ***Citizen action by I'M A PAL foundation and volunteers in cleaning the creek bed since the 1980's and planting invertebrates have significantly increased the productivity of Hamm Creek.***

- Page 10 3.2.5 Aesthetics and Recreational Resources line 6

  replace: "However, there have been considerable efforts to improve the Hamm Creek"...

  with: ***However, there have been considerable efforts by John Beal, stream keeper, to improve the Hamm Creek...***

- Page 10 3.2.5 Aesthetics and Recreational Resources line 10

  replace: "wildlife habitat by King County,"

  with: ***wildlife habitat by King County, and I'M A PAL Foundation***

- Page 13 4.1 Projects and Plans by Others paragraph 2 line 1

  replace:"(a King County project)"

  with: ***(a King County, I'M A PAL project)***

  4.1 Projects and Plans by Others paragraph 3

Creek, to the Elliott Bay Restoration Panel for consideration as a project to undertake. Years of negotiations with Seattle City Light , Elliott Bay Restoration Panel, King County, other agencies, proposals, and meetings have now come to a formal draft form for finally getting this vital restoration project off the ground.

Due to the past history of I'M A PAL's extensive involvement, I'M A PAL strongly supports the plan and encourages the implementation of it in completing valuable habitat project. The local community supports the I'M A PAL foundation's efforts to restore natural habitat, wetlands, streams in their community and they have been watching the progress of this site with anticipation. When there was an opportunity for this site to become a combustion turbine plant for Seattle City Light, the community turned out in record numbers to show support for a habitat restoration project instead. Their fervent protection of the site was instrumental in the decision to fore go the combustion turban plans and consider the option of improving the property for habitat. The local residents are hopeful of another successful project to improve their community, the dwindling salmon runs, and wildlife.

We would encourage the Corps to complete what so many have started and produce a positive significant impact on the Duwamish Waterway and the future of the entire Puget Sound area.

Sincerely,

John Beal
Founder/President

replace:"In addition, a citizen activist, John Beal, has been working with the County and others for several years improving habitat within the 7.12 acre site and on adjacent sites. Mr. Beal has removed trash from the area, reintroduced insect larvae and crayfish from other area creeks, planted a variety of aquatic and riparian vegetation and reintroduced a variety salmonids from all over Western Washington beginning in 1990"

with: ***In addition, a citizen activist, John Beal, and the I'M A PAL Foundation with hundreds of volunteers, have been working with the County and others for 18 years improving habitat within the 7.12 acre site and on adjacent sites. Mr Beal has removed several tons of trash from the area, reintroduced insect larvae and crayfish from other area creeks, planted thousands of trees and other various aquatic and riparian vegetation and reintroduced a variety of salmonids from Western Washington beginning in 1980.***

- Page 14 4.2 Importance of the Project to Migratory Fish in the Duwamish paragraph 4

include: ***as of March 1998, 600 salmon fingerlings were counted by Western Washington University Interns at the Pt Rediscovery site (King County-I'M A PAL project)***

paragraph 3 line 4

replace: "the adjacent King County restoration project"

with: ***the adjacent King County and I'M A PAL foundation project***

- Page 16 5.2 Goals and Technical Planning Objectives paragraph 3 #4

replace: " King County project"

with: ***King County and I'M A PAL Foundation project***

- Page 35 6.2.9 Cumulative Impacts line 3

replace:"citizens"

with: ***I'M A PAL Foundation, volunteers and residents***

6.2.9 line 5

replace: "King County project"

with: ***King County and I'M A PAL Foundation project***

- Page 36 6.4 Public and Agency Coordination paragraph 5 line 1

replace:"This project has had extensive coordination with many groups since it was originally conceived in the late 1980's."

with: ***This project has had extensive coordination with many groups since it was originally conceived by John Beal, of the I'M A PAL Foundation, and brought to our attention as a possible project site in the late 1980's.***

paragraph 5 line 8

replace: "Green/Duwamish Alliance"

with: ***Green/Duwamish Watershed Alliance*** * note "Green/Duwamish Alliance" is an additional group

- Page A - 12 Wildlife paragraph 2

include: Beaver *as of Jan 1998 was a large beaver dam @ Delta Marine

FISHERIES DEPARTMENT
Area Code (360)
598-3311
Fax 598-4666

THE SUQUAMISH TRIBE
P.O. Box 498 Suquamish, Washington 98392

TO: Pat Cagney

FROM: Margaret Duncan

DATE: 4/10/98

SUBJECT: Draft, Duwamish River, Turning Basin #3, Section 1135 Ecosystem Restoration Report/Environmental Assessment - March 1998 (prepared by COE)

Draft Ecosystem Restoration Report and Environmental Assessment (ERR/EA) for the Duwamish Waterway, Turning Basin #3 1135 Restoration Study - Notes/Comments due April 12, 1998/comments and suggestions to consider

Executive Summary, final paragraph - EB/DRP has pledged $725,000 as part of our legacy; yet, the report identifies King Co. as the purchaser. I think I understand your reasoning in not mentioning us, but. I'm like the public at the Seaboard meeting--I'm tired of this double credit/no credit situation--Can you write at least some little mention, something to the effect that the Panel "assisted with the purchase of the easement" or something that wouldn't stand out too much, but still give NRDA a little credit?

3 - see attached for some suggestions

5 - MD request copy of Cultural Resources Reconnaissance Report

7 - re: wetlands described as "generally of low quality and provide few values" - If we don't modify the language, we might be handing someone an almost free ticket to develop with no mitigation if we don't get the 1135 $. --might try instead, something like, "provide limited value in comparison with envisioned restoration" (strike "...are generally...water recharge, etc.)"

8 - final sentence: won't the intertidal benefit resident fish as well, e.g. sculpins, gunnels?

9 - need to rectify the different spellings: paragraph to of page Lyngbye's sedge; p. 28 reads: Carex lyngbyei; page B-5 reads (under Taxa Richness, Carex lyngbei)

9 - line 1 of 2nd paragraph - re "lower section": might specify the particular portion to be a little more precise?

11 - 3.2.7 - might want to refer to potential Chinook ESA listing?
3.2.8 next to last sentence - correct spelling: population

12 - 3.3.1 - not just container and other shipping - might add treaty fishing (tribal commercial, subsistence and ceremonial fishing) , recreational boating and subsistence fishing

14 - paragraph 1, , line 7- Hamm Creek - instead of "last urban stream", try "only", since maybe, maybe Longfellow could be daylighted (or, if this is so speculative and improbable, please ignore the thought...)?

16 5.2 - keeping in mind desires of various stakeholders, line 6,.please add Tribes...

17 - 5.3.2 - 3rd * - as I recall, the culvert is not always accessible from the river - - if I'm right, it may be helpful to point that out in terms of existing conditions

29 - 6.1.3, bottom 1/3 of paragraph beginning on page 28 - Re: no work near river taking place 3/15 through 6/15 - you might add that work will be coordinated also in accordance with treaty fishing activities. I wonder whether WDFW and the Tribes might also ask that you take returning adults into consideration, esp. given potential ESA listing.

30 - paragraph just before 6.1.6 - second line from bottom: correct sp.-from"separate" to "separate"

30 - notes that real estate estimate is $852,000 (same figure as p.37.. But Table, p. 24 estimates $875,000. Shouldn't you use the same estimated figure? (Aha - I see the breakdown on page 37 - maybe you need to asterisk this $852 and explain it in a footnote?) Or maybe this is no big deal at all...

31 6.2.1.a line to, first word change "do" to "due"

32 6.2.1.b - re next to the last line, "these wetlands have relatively low value)...in line with comment above (see entry for page #7) , suggest changing to "these wetlands are of limited value to fish and wildlife in comparison to the benefits of the completed project"

33 third paragraph, final sentence - correct spelling to "bankline"

33 - stop work and notice to Office of Archeology and Historic Preservation, and notice to King Co. Med ex if human remains are discovered - It would be prudent to add that affected Tribes will be notified, yes? The Suquamish has requested such notice when commenting on SEPA checklists produced by the Port...

36 - top of page, line 6 - close parenthesis clarifying HPA, i.e. (HPA from State Dept. Of Fisheries and Wildlife)

bottom 36, top 37 - well, finally the reader encounters the Panel -thank you! I don't know if it

2

might be possible to slip in a phrase about the Panel having assisted with the acquisition of the easement--would be nice if you could!

38 - 7.1 paragraph 2, line 3 - change "The" to "This" - the government may potentially need to reimburse the non-Federal sponsor for the estimated $6,000 excess (the non-fed share is $838,000, at 25% cost share. Only a Budget Committee Chair would make a note to ask : If the Panel pays that much on real estate acquisition costs, the Panel should get the refund, right?? We allocated $725,000, but King Co. Is ready to ask us for more.Not your worry--I'll tell Larry we expect our money back just to hear him laugh since we both know that we'd never get, and I'm hardly being serious...

A-15 - 5.5 -"The site lacks attributes such as plant diversity, commercial fisheries, and historic sites:.." - In line with comments above, you might consider changing this. Also, re: paragraph 2 reference to consumptive values ..Treaty fishing which occurs in the area is broader than commercial-- subsistence and ceremonial values accrue as well

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

Restoration Center Northwest
NMFS Northwest Regional Office F/NWO
7600 Sand Point Way, N.E.
Seattle Washington 98115-0070

Mr. Pat Cagney
Environmental Coordinator
Seattle District (ED-TB-ER)
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle WA 98134-2255

7 April 1998

Dear Pat:

This Draft ecosystem restoration report and environmental assessment for Turning Basin #3 1135 study looks just fine to me. I have no major comments; however, I have raised a few questions for your consideration. NOAA appreciates the opportunity to provide input on this laudable proposal.

1. p. 12-3: Would it help to expand this section to show how the Section 1135 activity would build and partner on top of even more restoration projects in this area? It might show the critical importance of this 1135 project to the success of the other efforts. For instance:

   a) Turning Basin Geographic Focus Area from EB/DRP Concept Document (Tanner)
   b) Norfolk CSO cleanup project just upstream (Romberg)
   c) Kenco - more information available from Malcom
   d) North Wind Weir - upstream at upper extreme of salt wedge whereas the Turning Basin is probably near the downstream end - you cover in section 4.2
   e) Port of Seattle mitigation site between Coastal America and Kenco - Blomberg
   f) Removal of ferry hulk this summer - Blomberg?
   g) continuing Corps dredging of clean sediments which can be used for local capping materials source - this is a desirable natural resource which the Corps controls.

2. p. 26, Sec. 5.9 - remember the cost estimates per acre may vary between an upland easement (Duwamish/Hamm Creek), appraised upland only commercial value (North Wind Weir), and commercial upland and subtidal appraisal (Seaboard).

Voice (206) 526-4338/4348 FAX (206) 526-4321/6865

3. p. 27, 6.1.1, 2nd ¶: Greg Johnson, Fish Biologist, WDF&W, told us that he didn't think that the twin culverts were limiting to salmon passage but that enhancement by a middle chamber would be beneficial - can we use his verbal statements to us in this section?

4. p. 36, 1st ¶: ...State Dept. of Fish and Wildlife...

5. p. 36, last ¶: You might want to expand on the EB/DRP Geographic Focus Area concept here and state that the Seattle District was a named player in the Consent Decree (Sec. 15; technical working groups) and that you have participated actively in this role as the Corps representative?

6. p. 37, Sec. 6.5 - how much of this funding does the Panel need to come up with as the County's (non-Federal) share? We will probably authorize up to $750,000 for the easement and County acquisition expenses - is that enough?

7. Figure 1
   a) would it help to dash Hamm Creek in white to show its path?
   b) how adding another dash format along the current tight-lining pathway to the marina outfall?
   c) locate other sites - Norfolk CSO, Port of Seattle mitigation site, ferry hulk to be removed.

Hope some of these comments help.

Sincerely yours,

Robert C. Clark, Jr.
Director

cc: Curtis Tanner, US F&WS, Olympia Office
Dr. Russell Bellmer, NOAA RC/HQ, Silver Spring, MD
Glen St. Amant, Muckleshoot Indian Tribe
Margaret Duncan, The Suquamish Tribe
John Boettner, WDF&W
Joanne Polayes, WDOE
Robert Swartz, King County DNR
Tim Croll, City of Seattle, Public Utilities

APPENDIX H

SEDIMENT CHARACTERIZATION OF HAMM CREEK

(NO CHANGE FROM DRAFT)

APPENDIX I

GEOTECHNICAL REPORT

(NO CHANGE FROM DRAFT)

APPENDIX J

HYDRAULIC DESIGN AND HAMM CREEK HYDROLOGY

(NO CHANGE FROM DRAFT)

APPENDIX K

REAL ESTATE ASSESSMENT

SECTION 1 - PROJECT LOCATION, DESCRIPTION, AND ACREAGE

1.1 The Duwamish River Turning Basin No. 3, Section 1135 Ecosystem Restoration Project location is just south of Seattle, King County, Washington, near river mile 6.2 on the left bank of the Duwamish River.

1.2 King County is the Non-Federal Sponsor for this project. The proposed project modification encompasses approximately 6.20 acres of permanent easement and 3.50 acres temporary work area easement. The temporary work area easement provides access for construction to the restoration site from West Marginal Way Place South. West Marginal Way Place South borders the west side of the restoration site. Seattle City Light is the property owner. Future operation and maintenance access to the site is available by barge from the Duwamish River. Future legal access is available from various points along West Marginal Way Place South, however physical access will need to be constructed over the open ditch (Hamm Creek) which runs along the west boundary of the property. Table K-1-1 below lists the real estate interests, and estimate of land values for this project. There are no existing federal lands within the proposed project footprint.

TABLE K-1-1

ESTATE	ACREAGE	ESTIMATED VALUE
Permanent Environ-mental Easement	6.20	$659,000
Temporary Easement (1-year)	3.50	$50,000
Total	9.70	$709,000

SECTION 2 - ESTATES

2.1 Non-Standard Estates: The non-standard estate presented below was developed with full coordination and consultation with the Non-Federal Sponsor. The Non-Federal Sponsor is currently in the process of acquiring the following non-standard environmental estate from the owner. The acquisition of an easement has been authorized pursuant to a Resolution dated November 7, 1996, by the Elliot Bay/Duwamish

Restoration Panel. Currently the Non-Federal Sponsor has an "Option to Purchase" with the landowner contingent upon approval of the project report. For the site location see the project drawing, Figure 4 in the main report. The Non-Federal Sponsor was advised verbally throughout the study process of the risks associated with advance land acquisition activities.

> "A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair, and replace channel features, plantings and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the placement of materials or structures in the bed or banks that influence steam velocity or channel form; together with any necessary access for construction, operation, repair or replacement; reserving however to the Grantors, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements for public roads and highways, public utilities, railroads and pipelines."

The Non-Federal Sponsor is acquiring this non-standard easement estate because the property owner is not agreeable to allowing the project to go forward with a fee estate as generally required by USACE regulation. Seattle City Light has several electrical conductors on the site that must remain in place. There is an anticipated future need for additional aerial crossing by electrical conductors. The owner does not want to lose control of the property and hinder their current and future obligations to provide quality service to their customers. The project can work around the electrical conductors and limits imposed by the overhead electrical conductors within specific areas of the site.

The non-standard easement estate provides all the necessary rights to construct, maintain, and preserve the quality of habitat developed. It allows Seattle City Light to maintain their facilities and retain clear liability for their operation. The owner and Non-Federal Sponsor want to be able to show that industry and environmental improvement can work together. The project places the habitat work as an amenity to the

owners parcel. The Non-Federal Sponsor feels this project with its ability to work with the owner will be an excellent example for future development/habitat projects.

USACE, Seattle District (District) is in agreement with the Non-Federal Sponsor in use of the above estate. The District is including this non-standard estate in this report for consideration and approval by HQUSACE (CERE-AP) pursuant to ER 405-1-12, Change 31, of May 1998. The environmental estate presented above is similar to those approved for use by USACE, Walla Walla District.

2.2 Standard Estate: For the temporary work area easement we are using standard estate number 15 in EP 405-1-12, Change 7 of 8 Feb 79.

SECTION 3 - NAVIGATIONAL SERVITUDE

3.1. Navigational Servitude. The estuary habitat is adjacent to navigable waters, but not within the federal navigational servitude area.

SECTION 4 - PUBLIC LAW 91-646 AND ACQUISITION

4.1. Public Law 91-646 Acquisition and Relocation Benefits. The Non-Federal Sponsor was advised of Public Law 91-646, as amended. The Non-Federal Sponsor has land acquisition experience and is capable of acquiring any lands necessary for the project. See Exhibit A for an assessment of the non-Federal Sponsor's land acquisition capability. The Non-Federal Sponsor continues to be advise of the risks associated with advance land acquisition activities.

4.2 This project does not displace any land owners or businesses. At this time the District is not aware of any outstanding mineral interests in the vicinity of the project that may affect execution of the estuary project. The District is not aware of any public opposition to this project. The land in this area is not know to contain hazardous and/or toxic wastes (See Appendix H). There is no facility or utility relocations as a result of this project.

4.3 Before advertising for construction, the Non-Federal Sponsor must demonstrate it acquired all the necessary property interest, and certify the land available for construction. The Non-Federal Sponsor is required to make all lands necessary for the project available to the District by a Certification of Lands and Authorization For Entry Document (Exhibit B) and Attorney's Certificate (Exhibit C).

SECTION 5 - REAL ESTATE COST ESTIMATE

5.1. Cost Estimate for Real Estate Division: The non-Federal Sponsor provided the fair market value for the land, and an estimate of their anticipated costs incidental to acquisition. The appraisal used to support the land value was submitted through the USACE real estate appraisal approval channels for review and accepted. Provided below is a baseline cost estimate for the land value, Non-Federal Sponsor land acquisition expenses, and Federal review and assistance costs.

TABLE K-5-1

Lands and Damages	$709,000
Non-Federal Sponsor's Costs	29,000
Federal Review and Assistance Costs	8,300
Subtotal	$746,300
Contingency 10%	75,000
TOTAL	$821,300

EXHIBIT B

DATE:

Department of the Army
Seattle District, Corps of Engineers
ATTN: Real Estate Division
Post Office Box 3755
Seattle, Washington 98124-3755

RE: Certification of Lands and Authorization for Entry Duwamish River, Turning Basin Number 3 Project, Section 1135 Ecosystem Restoration

By Project Cooperation Agreement dated the _____ day of _____ 199__, the King County, Washington, assumed full responsibility to fulfill the requirements of non-federal cooperation as specified therein and in accordance with the Water Resources Development Act of 1986, as amended.

This is to certify that King County has sufficient title and interest in the lands hereinafter shown on Exhibit A, attached, in order to enable King County to comply with the aforesaid requirements of non-federal cooperation.

Said lands and/or interest therein are owned or have been acquired by King County and are to be used for the construction, maintenance and operation of the above referenced project and include but are not limited to the following specifically enumerated rights and uses, except as hereinafter noted:

1. Environmental Restoration Easement: A perpetual and assignable right and easement in, on, over and across (the land to be described) to construct, operate, maintain, repair, and replace channel features, plantings and any other improvements within the riparian/river corridor for fish and wildlife habitat improvements and other environmental benefits; including the placement of materials or structures in the bed or banks that influence steam velocity or channel form; together with any necessary access for construction, operation,

f. Will the sponsor likely request USACE assistance in acquiring real estate? **No** (If "yes," provide description).

III. **Other Project Variables:**

a. Will the sponsor's staff be located within reasonable proximity to the project site? **Yes**

b. Has the sponsor approved the project/real estate schedule/milestones? **Yes**

IV. **Overall Assessment:**

a. Has the sponsor performed satisfactorily on other USACE projects? **Yes, however, King County is typically slow and reluctant to acquire the necessary interests or to adequately demonstrate they have the necessary interests in project lands.**

b. With regard to this project, the sponsor is anticipated to be:
___ highly capable
_X_ fully capable
___ moderately capable
___ marginally capable
___ insufficiently capable. (If sponsor is believed to be "insufficiently capable:, provide explanation).

V. **Coordination:**

a. Has this assessment been coordinated with the sponsor? **Yes**

b. Does the sponsor concur with this assessment? **Yes**
(If "no," provide explanation).

Prepared by:

9/24/97

Wanda F. Gentry
Realty Specialist

Reviewed and approved by:

DIANE K. SORHUS
Acting Chief, Real Estate Division

A:TBN3CAPCKLST.DOC
08/26/97

Exhibit "A"

TURNING BASIN NUMBER 3, HABITAT RESTORATION PROJECT, DUWAMISH RIVER, WASHINGTON

ASSESSMENT OF NON-FEDERAL SPONSOR'S

REAL ESTATE ACQUISITION CAPABILITY

I. **Legal Authority:**

a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? **Yes.**

b. Does the sponsor have the power of eminent domain for this project? **Yes.**

c. Does the sponsor have "quick-take" authority for this project? **The Non-Federal Sponsor has the authority to acquire immediate possession. However, title vests after just compensation is determined by agreement or judicial decision.**

d. Are any of the lands /interests in land required for the project located outside the sponsor's political boundary? **No**

e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **No**

II. **Human Resource Requirements:**

a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? **No**

b. If the answer to II. a. is "yes," has a reasonable plan been developed to provide such training? **N/A**

c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **Yes**

d. Is the sponsor's projected in-house staff level sufficient considering its other work load, if any, and the project schedule? **Yes**

e. Can the sponsor obtain contractor support, if required, in a timely fashion? **Yes**

repair or replacement; reserving however to the Grantors, their heirs and assigns all other rights and privileges that may be used without interfering with or abridging the enumerated rights and easement hereby conveyed and acquired; the grantor's reserved rights include all rights to restrict, control or limit access by the public at large, unless otherwise granted or conveyed to competent public authority; all subject to existing easements for public roads and highways, public utilities, railroads and pipelines.

2. Temporary Work Area Easement: A temporary and assignable easement and right-of-way in, on, over and across the land delineated on the Exhibit ___ attached, for a period not to exceed one (1) year, beginning with date possession of the land is granted to the United States, its representatives, agents, and contractors, as a work area, including the right to move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the Duwamish Turning Basin Number 3, Section 1135 Ecosystem Restoration Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

King County does hereby grant to the UNITED STATES OF AMERICA, its representatives, agents and contractors, an irrevocable right, privilege and permission to enter upon the lands hereinbefore mentioned for the purpose of prosecuting the project.

King County certifies to the UNITED STATES OF AMERICA that any lands acquired subsequent to the execution of the Project Cooperation Agreement that are necessary for this project have been accomplished in compliance with the provisions of the Uniform

Relocation Assistance and Real Property Acquisition Policies Act of 1970, (Public Law 91-646) as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 CFR Part 24.

KING COUNTY, WASHINGTON,

By:_____
Name:
Title

DATE: _____

EXHIBIT C

ATTORNEY'S CERTIFICATE OF AUTHORITY

PROJECT NAME: Duwamish River, Turning Basin Number 3, Section 1135 Ecosystem Restoration Project

I, _____[Name of Attorney], an attorney admitted to practice law in the State of _____[State], certify

That I am the attorney for the _____[Non-Federal Sponsor].

That I have examined the title to _____[Parcel #] of land identified by the U.S. Army Corps of Engineers as needed for _____[Project Name] and included in the Certification of Lands and Authorization For Entry document to which this Certificate is appended.

I, _____[Name of Attorney], for _____[Non-Federal Sponsor], certify that _____[Non-Federal Sponsor] is vested with sufficient title and interest in the described lands required by the United States of America to support the construction, operation, and maintenance of the _____[Project Name].

I further certify that there are no outstanding third party interests of record which could defeat or impair the title and interests of _____[Non-Federal Sponsor] in and to the lands described. Such interests include, but are not limited to, public roads and highways, public utilities, railroads, pipelines, other public and private rights of way, liens and judgments. To the extent such interests existed prior to acquisition of the described lands by the _____[Non-Federal Sponsor], such interests have either been cleared or subordinated to the title and interests so acquired.

That _____[Non-Federal Sponsor] has authority to grant the Certification of Lands and Authorization For Entry to which this Certificate is appended; that said Certification of Lands and authorization for entry is executed by the proper duly authorized

authority; and that the authorization for entry is in sufficient form to grant the authorization therein stated.

DATED AND SIGNED at _____, this ____ day of _____ 199__.

_____

NAME:
TITLE: